Part III

19 50

File No. GBJ 1051

A CLASS

P.W. DEPARTMENT

K (E) BRANCH

Subject :— Electrification

Towns in Bijapur Dist.

A [K] 1951

P = 34

F

Part III

File No. GBJ 1051

Std. Sectt. Slip 24-A

598 10,000 7-56—K9
[G. R. No 2409, dated 22-6-22.]

Std. Ref. 78

DOCKET SHEET

Subject:—
Electrification of Guledgud and Kamatgi

File No. GB105-1

P. W. DEPT.

h BRANCH.

References:—

Date.	To whom sent.	Notes and instructions.
23/5/51	I. Section	Pl. issue n.o. to the F.D
29.5.51	Br XIV	P.C. return to P.W.D.
30 11/6/51	I. S.	Pl. issue the draft G.R. and P.S. 31-32. H.O. stamp to F.D.
21/6/51		Record (A)

G. R., G D., No. 2408, dated 22-6-22.]

Sects. 78A e.

DOCKET SHEET (B)

Pt. III

Subject:—

File No. 8993/36

P.W. **DEPT.**

El. **BRANCH.**

References:—

Date.	To whom sent.	Notes and instructions.
2/10	D.S.	Issue expedite at b.1 & N.S. & bank
6/10	File Br	Dwait (6-10-50)
4/11	"	" (4-12-50)
7/12	D.S.	Issue expediter at b.1 & N.S. & bank
10/2		Dwait (5-3-51)
22/2		" (22-3-51)
13/4	D.S.	Issue no. to C.E. El. Engrs (13-5-51)
11/5/51	D.S.	P. issue no. to F.D.
22.5.51	Br XV	Pl. return no. to PWD with thanks

8993/36/45115.

P.W.D.

El. Br. (I).

Submitted with reference in the office note dated 19-6-1950 at p. 33[X] N/S of file No. 8993/36 I.

X Ref "A".

2. The Electrical Commissioner with the Govt. of Bombay may now be expedited under No. 8993/36-El (I), dated 3rd ~~September~~ October, 1950.

3/10/50

27-9-50.

2/10/50

8993/36/84651.

P.W.D.

El. Br. (I).

p. 1/c.s.
Submitted.

2. A further communication from the Electrical Commissioner may be awaited.

31-10-50.

A.A.S.

2/11/50

El. Br. (I) -
Resubmitted
2. The Fuel Commn. expedited on the 8-2-51, with reference this letter abp 1 of the C.S.

P.W.D.

Issued 9/8/2

7/2/51.

7/2/51.

8993/36/14814

El. Br. (I) P.W.D

Submitted

2. A further communication from the Electrical Grid Commissioner may be awaited

24/2/51

DAS

185
8993/36/14814.

= 4

El. Br. (I)

P.W.D

Resubmitted with reference to the O.N., overleaf.

2/- Please see letter dt the 14-2-51 at p 3 of 4. No. The C.E., B'bay Elec. Grid may be requested to state how the matter stands.

13/4/51

1/- C.E. Bb. Grid 13-4-51

AAS

EE(P) II

OFFICE OF THE ELECTRICAL COMMISSIONER WITH THE GOVERNMENT OF BOMBAY
Inward No. 10453
Date 14/4

Below Govt., P.W.D.U.O.R.El.Br.(I

No.8993/36/14814.

ELECTRIC GRID OFFICES.

The detailed revised estimates for Guledgud & Kamatgi are ready and being type As such same will be forwarded shortly.

2. The estimates for Ilkal are being finalised and will follow soon after.

T. J. Vaidyanathan
20.4.51.

Secy to Govt.,

P.W.D., Bombay.

U.O.R.No.Elg(D&S)II/356/ 11215

Dated 23 April 1951.

MAK/20.4.

K 24/4
P. W. D.
File No.
Central No.
Serial No. 3555
GBIbs
K
23 4

9 7 GBI 1051

35014, 35015, 37303, 37382

K-Bor P.W.D.

pp 5-27-cs

Submitted-

21- In G.R. No 8993/36, dt the 21-1-1948, Govt. has given administrative approval to the electrification of Guledgud and Kanatgi Towns in Bijapur Dist. at an estimated cost of Rs. 5,01,300/-. The C.E., B'lore Elec. Grid has now submitted detailed estimates amounting to Rs. 9,42,305/- for according revised administrative approval to the above scheme. The reasons for submitting these revised estimates have been fully explained by the C.E. in his letter pp 5-9 dt the 20-4-51. The proposal of the CE may be accepted in consultation with the Fin. Deptt.

† Slip A
file 8993/36-I
p 125

⊙ ..do pp 5-9 cs
& Keep below

31- Please also see letter p 21-cs dated the 28-4 from the C.E., B'lore Elec. Grid, which is self explanatory. For the reasons stated therein, the CE. may be authorised to place orders in connection with building and civil works at Guledgud at a cost of Rs 93,000/- (incl of land cost), in consultation with the Fin.

Thro' 'B' Bor

DS

4. A provision of Rs. 3,10,000 has been made for the electrification of Guledgad and Kamatgi towns in the Bijapur Dist in the current year's Budget ests. under "87-A"

Kh 10/5/51

Kh/10/5/51

While the cost of the scheme has gone up due to the rise in cost of materials & labour (with addition of a small item not previously included) the Tariff is also proposed to be revised so as to make the scheme self supporting in the 10th year.

FINANCE DEPARTMENT
III
14-5-51
39986

11/5/51

N.B. To the F.D dt. 14th May 1951
(with file Nos. 8993/36-P&I & II + plans & estimates)

9 H

Finance Department (III)

The P.W.D. has now proposed to accord revised administrative approval to the electrification of Guledg and Kamatgi Towns in Bijapur District at a cost of Rs.9,42,305/- as against the cost of Rs.5,61,300/- approved in G.R.,P.W.D. No. 8993/36 dated 21-1-48. The revised estimate of Rs.3,81,005 ~~which~~ shows an increase of 68% over the original estimate. There is a provision of Rs.3,10,000 in the current year's budget for the work in question.

2. This Department for the reasons mentioned in para.3 of the P.W.D. foregoing note may agree to the proposal of authorising the C.E. to place orders in connection with building and civil works at Guledgud at an estimated cost of Rs.93,000/- (inclusive of land cost) which should be met from the current year's budget. This Department may also agree to accord revised administrative approval to the work referred to in para.1 above ~~but in view of the big increase in the revised estimate, this Department may advise the P.W.D. to put up the proposal for the net increase as a new item for the next year's budget.~~ It is in connection pointed out the P.W.D. estimate and the Executive Engineer's remarks towns in Bijapur District by already incurring in the work over the amount provided for in the current year at Rs. 9,49,692 by the P.W.D. & via of the financial stringency the P.W.D. may be required not to exceed the provision by incurring actual exps. on the work.

SHP 15-5-51

Thro Br I 16

Ms (Bud) 19-5-51 21

Sec to Govt to the P.W.D. & 22.5.51 24

Sec Fin 21/5

10

with 2 files & bdf

MS. K 24/5-31 file

P. W. D.
File No. GBI 1051
Serial No. 45240

Shen Luk 24/5/31

K

24-5-31

2713 II

PWD

G/13 Ps-7
40863

K.B.r.

Submitted.

2. The main papers dealing with the question of according revised administrative approval to the estimates for the electrification of Guledgud and Kamalgi have been referred u.o. 6 the F.D. on 11-5-57. In view of the reasons explained by the C.E. in his letter P-1 he may be authorised to place order on M/s. L.R. Kavalay and some to commence the building work for the above scheme in anticipation of revised administrative approval to the scheme. Necy. draft will be put up for approval after referring these papers u.o. to the F.D. for concurrence. That Deptt. may be requested to treat this as very urgent.

Thro' S.B. 18 B.B.T.

22/5/57 3. A provision of Rs. 3,10,000 has been made in the current year's budget estimates for electrification of Guledgud and Kamalgi towns in the Bijapur Dist.

Kms 22.5.57

Kjm 23/5/57

18 23/5/57

Very Urgent.

U.O. 6 the F.D. dt. 24th May 1957

T.A.

Addl. Secy. R/2/5

Secy. 23/5

D.S. 23/5

III 24-5-57 40758

Fin. Deptt. 14/12

Br III

6094

The main papers in question referred to at B in the P.W.D. O.N. overleaf have been returned to that Deptt. on 22.5.51. P11

This Deptt. may agree to the proposal at A in the P.W.D. O.N. on the strict understanding that no excess expr. over the current year's sanctioned amt of Rs. 3.10.000 is incurred without sanction of Govt.

5-5-51

26/5/51

25/5/57

M.R. of the P.W.D. dt: 22-5-51.

Thro: Br V

Dy (Genl)

31/5

Mfg No. GBI 1051

Serial No. 4120

K

31 5 51

31/5/57

15 13 GBI 1051
45240, 47120

P. W. D.
K

Submitted with ref. to the O.N. dated the 10-5-51 p9-10 and 22-5-51 p13.

2. The F.D. has agreed p11 to this Deptt.'s proposal to give revised admve. approval for the electrification of Guledgud and Kamatgi in Bijapur Dist. at an estimated cost of Rs.9,42,305/-.

3. The F.D. has also agreed p11,14 to this Deptt.'s proposal to authorise C.E. to place orders on Messrs. L. R. Karalay & Sons in con. with the Building and Civil works at Guledgud at a cost of Rs.93,000/- (Rs.84,000 plus Rs.9,000 for the cost of the land).

✓ this distribution has been informally obtained from the CE

4. The C.E. has submitted the second proposal, so as to commence the bldg. work for the above scheme in anticipation of revised admve. approval to the scheme. As Govt. has now decided to give revised admve. approval to the above scheme no separate orders on the C.E.'s proposal refd. to in para. 3 above are necy.

vide para 3 of CE's letter at p 29 ✓

5. The necy. draft resolution p31 cs put up may now issue if approved.

GJP.
6/6/51

6/6/51

7/6/51.

Thro' B Bm + DE(S)

7-6-51
DS

8/6/51

Secy.

X
H.M.

X 9/6

8/6/51

11/6

8/6/51

Rs.420,635/- which includes the contingencies and other charges mentioned in the previous paragraph.

The above two interim sanctions being only for materials of long delivery, the matter of the remaining items like Power House Building, land etc. were not dealt with previously.

As Government are aware, cost of building material & labour have also risen steeply. The administratively approved sanction dated 21-1-1948 allowed for Rs.63,050 for these items which have now to be revised to Rs.93,000. A new item of Testing Instruments has to be included for Rs.9,072/-, as the same was overlooked in the original proposal of 13th October 1947.

Since submitting the first revised estimates for Transmission & Distribution line materials under this office letter No.Elg.356/6530 of 12-4-50, the prices of copper, steel, & rubber have shot up. The price for copper wire has been estimated 20% higher than the last year's rate contract rate for the same in the absence of a new rate contract and in view of the shortage of raw materials. For similar reasons, the rate for V.I.R.Cables has been estimated 33% higher than last year's rate-contract rate.

× slip c 8993/36-II p 135

A comparative statement of the cost of this scheme under each sub-estimate administratively approved by the Government and as now worked out is enclosed vide statement I. p 11 post

The increase in interest & depreciation charges on account of higher capital cost & larger operation and maintenance charge due to:-

(a) the price of fuel oil being about Rs.250/- per ton at site against Rs.165/- per ton assumed previously in the administratively approved estimates,

and (b) the increased charges on establishment due to increased cost of labour,

necessitate a revision; also of the Revenue Forecast on

9

-3-

basis of which the scheme was administratively approved.

The tariff rates assumed for a calculating revenue are therefore taken as those which have been sanctioned by the Government for Ratnagiri District & which are in force from 1-3-1951.

The Revenue Forecast for the first ten years worked out on the above basis is shown in statement II. It will be seen that the scheme is just self supporting in the 10th year of operation at the new tariff as the original proposal was at the old tariff.

Since both the capital cost & revenue forecast of the scheme have materially changed, revised administrative approval to the scheme is necessary, which may kindly be accorded. It is neccessary to mention that in view of the frequent fluctuations in the present market conditions, the rates assumed in the estimates for materials yet to be ordered are only those as are now known & therefore to be treated as approximate.

T. J. Nicholas
20-4-51.

HBK/16.IV.51. Chief Engineer.

STATEMENT No.1.

Items	Amount approved administratively for both towns.	Interim sanctions to Revised Estimates.	Amount as per present estimates.
	I	II	III
	Rs.	Rs.	Rs.
1. ~~Sub~~ Sub-estimate I.		(368292+36232)	
(a) Power Plant etc.	2,60,170	4,04,524	4,31,905
(b) Building.	63,050	63,050	93,000
2. Sub-estimate II:-		(420635-36232)	
Transmission & Distribution Lines.	1,34,628	3,84,403	1,97,763
3. Sub-estimate III:-			
Transformers etc.	1,03,452		2,10,565
4. Sub-estimate IV:-			
Testing Apparatus.	-		9,072
	5,61,300	8,51,977	9,42,305.

Rise of III over II = 10.6%.

HMK/16.IV.51.

(5)

Guledgud & Hamatgi.

Cost of Fuel:-

Statement No.2.

Rs. 250 per ton in the 1st year.

Rs.250 - 5% =Rs. 238 per ton in the 2nd year.

Rs.250 -10% =Rs. 225 per ton in the 3rd,4th, 5th years.

Rs.225 - 5% = Rs.214 / ton in the 6th, 7th years.

Rs. 225 -10% = Rs.202 / ton in the 8th, 9th years.

Rs.225 -15% = Rs.191 / ton in the 10th year.

BASIS FOR TARIFF RATES - AS PER STATEMENT ATTACHED.

Year	Maxm.Demand kVA.	Probable Revenue Rs. Lighting	Power	Total	Probable sale of units KWH: Lighting	Power	Total	Total units Generated	App.Working Cost Rs.	Dep. & Interest.	Nett profit or loss Rs.
1st	51	9,609	26,435	36,044	15,855	110,800	126,655	160,765	64,113	64,655	- 92,724
2nd	101	24,022	51,663	75,685	39,637	221,600	261,237	315,534	75,653	64,655	- 64,623
3rd	125	36,033	60,421	96,454	59,456	265,920	325,376	389,294	79,793	64,655	- 47,994
4th	142	43,240	67,984	111,224	71,348	299,160	370,508	441,194	83,643	64,655	- 37,074
5th	157	48,044	75,534	123,578	79,275	332,400	411,676	488,538	87,078	64,655	- 28,155
6th	174	51,647	81,269	132,916	85,220	365,640	450,860	533,600	88,573	64,655	- 20,312
7th	189	55,250	88,652	143,902	91,166	398,880	490,046	578,663	91,763	64,655	- 12,516
8th	204	58,853	93,685	152,538	97,112	432,120	529,232	623,729	95,899	64,655	- 8,016
9th	219	62,465	100,898	163,363	103,058	465,360	568,418	668,792	98,929	64,655	- 221
10th	233	64,858	105,621	170,479	107,023	498,600	605,623	711,577	98,985	64,655	6,839
				1206,183					864,429	646,550	-304,796

HBK/17.IV.51.

Proposed Diesel Nursery Scheme for the Towns of Guledgud and Kamatgi in Bijapur District.

1) Features of Town:-

Guledgud:-Guledgud is situated in Badami Taluka The nearest Railway Station is Guledgud Road, 7 miles of Guledgud. There is an all weather road connecting Guledgud and Guledgud Road. The total area covered by the tow of Guledgud is 0.35 sq. miles.

Makrk Kamatgi:- Kamatgi is situated in Hungund Taluka The nearest Railway Station is Bagalkot 15 miles off Kamatgi. There is a P.W.D.road connecting Kamatgi and Bagalkot. The total area covered by the town is about 0.2 sq. miles.

2) Population:-

Guledgud:- The population of Guledgud was 18,307 in 1941.

Kamatgi:- The population of Kamatgi was 6,995 in 1941.

3) Scope of Electrical Development:-

As a part of the first stage of electrical develop-ment under the post war reconstruction schemes in the State, Government have approved the electrification of these two towns. This proposal provides for the installation of a power station at Guledgud with the necessary equipment for generating electricity at 400/440 volts, 50 cycles A.C. and stepping up this voltage to 11 kV., transmission to the transformer substations at 11 kV and distribution for domestic, industrial and street lighting purposes in the important parts of the towns at 400/230 volts.

+ vide GR 8993/36 dt Nov-1-48

Details of the Scheme are as under:-

(a) Power House:- The land necessary for the building of the power station and laying out the necessary auxiliaries and the machinery to be installed inside the building will be as shown in Drawing No.DS.II/195 enclosed.

(b) Generation:- In the initial stage, one diesel engine alternator of 200 kW & two of 100 kW each will be installed with the necessary auxiliaries. With the growth of load it is proposed to instal an additional set when necessary later. Though the cost of this extension is not provided in this estimate, the design of the power station building has been made so as to accommodate the fourth set.

(c) Outdoor step up sub-station:- The voltage is stepped up to 11000 volts by the installation of two numbers of 150 KVA transformers, 420/11000 volts in the power house compound.

(d) Transmission:- From the step up substation in the power house, one 11 kV feeder is taken along the main road to feed transformer substations in the load centres at Guledgud and Kamatgi. The feeder will be run on rail poles, 60/50 lbs. section. The conductors will be of 6 S.W.G.copper.

(e) Distribution:- The pole mounted outdoor transformer substations will be one of 75 kVA. at Kamatgi and 2 of 50 kVA at Guledgud. From each of these substations a three phase 4 wire distribution will be taken over the important streets of the town to feed industrial and domestic consumers. The distribution lines will be taken wherever possible on the same poles carrying 11 kV and singly along routes where no H.T. line is taken. Copper conductors of different sizes suitable for giving proper voltage regulation on the different feeders will be used. A separate phase wire from the power house and each substation is provided for street light conductors, the operation of which will be controlled at the power house and sub-stations. Guarding between H.T. and L.T.lines and L.T.lines and the ground is to be provided.

(f) Service Connections:- On a moderate estimate it is anticipated that 754 domestic consumers, 32 industrial loads, and 255 street lights will be connected up during the first five years of operation. This includes the cost to the Government on such connections.

(g) Testing Apparatus:- The estimate includes the provision of necessary workshop and other tools for the power station and transmission & distribution lines and also the important instruments required for the operation and maintenance of the installations.

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HRK/17.IV.51.

Letter.

Immediate

No.Elg(D&S)II/386/20-08
Electric Grid Offices,
Mercantile Bank Building, Fort,
Bombay 1: April 1951.

To

The Secretary to Government,
Public Works Department,
Bombay.

Subject:- Electrification of Guledgud and Kamatgi in Bijapur District.

Regarding:- Buildings and Civil work for Guledgud Power Station.

Please refer to my letter No.Elg(D & S)II/11110 of 20.4.1951 enclosing revised estimates for the Electrification scheme of Guledgud in Bijapur District.

For reasons stated therein and also for the difficulties and delays experienced in the acquisition of lands for Power Stations the matter of the Items like Power House Buildings, land etc. were not dealt with previously at the time of obtaining interim sanctions for increased expenditure as accorded by Government under their No.8993/36-El.(I) of 31.10.1949 and 19.6.1950.

The site for Power House at Guledgud has been taken over and the tenders for Building work have already been received. Plant and machinery already on order for the Power Station are expected to be delivered in September-October, by which time the building must be ready to accommodate the Plant, as otherwise some avoidable inconvenience and expenditure will have to be undergone in finding out accommodation for same elsewhere. The programme of work will also be delayed. I therefore recommend that orders for the building and other civil work for Guledgud may be placed in anticipation of revised administrative approval for which proposals are already sent to Government under cover of above letter.

I request that Government be pleased to authorise me as soon as possible to place orders in connection with building and civil work at Guledgud at a cost of Rs.93,000/- (inclusive of land cost) as per present estimate. The provision against this work in the Administrative approval for Guledgud dated 21.1.1948 is Rs.55,600/-.

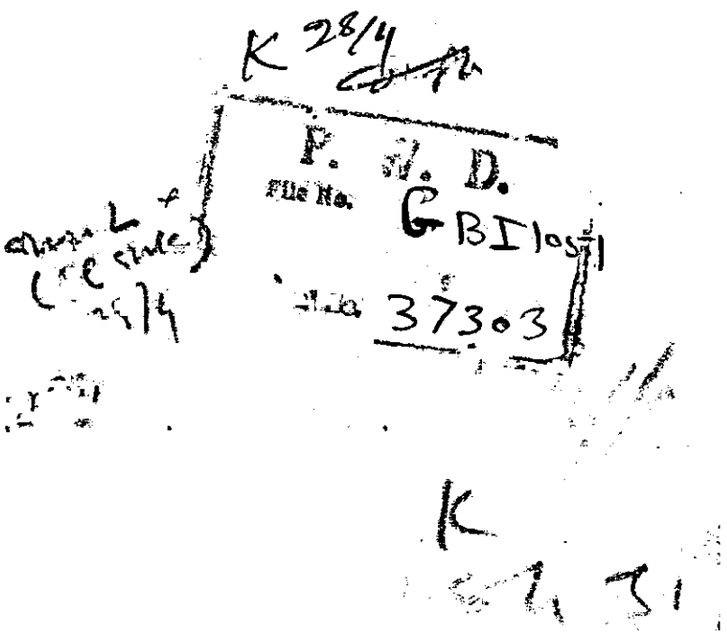
In order to enable me, in proper time, to take action on tenders already received for building work and in order that I may be able to keep time with the incoming Plant which

P.T.O.

is due to arrive in September-October, I shall be obliged if Government orders authorising the expenditure as above for the civil works at Guledgud are issued as early as possible.

T. J. Mackenzie
Chief Engineer.

MAK/27.4.



ELECTRIC GRID DEPARTMENT

RATES AND CHARGES FOR THE SUPPLY OF ELECTRIC ENERGY.

at Ratnagiri, Vengurla, Malwan, Chiplun. (RATNAGIRI DISTRICT) / LAMPUR - PETH effective from 1-8-1951, 22-12-1950.

Rate R.L.3. - Lighting, fans and small appliances. (Metered supply)

Rate:-

8 annas per unit for first 40 units consumed per month.

7 annas per unit for all additional consumption per month

Minimum Bill - Rs. 2-0-0 per month per installation exclusive of meter rent.

Rate R.L.4. - Bazar Lights - burning not more than 5 hours per day (Unmetered supply).

Rate:-

Rs. 3-4-0 per month per lamp of 40 watts or less.

Rs. 4-8-0 per month per lamp of 60 watts.

Rate R.A.2. - Refrigerators, small cookers and heaters of not more than 1 kW. and small motors upto one H.P. attached to appliances.

(When metered on a separate circuit)

Rate:- 4 annas per unit for all energy consumed during the month.

Minimum Bill:- Rs. 5/- per month per service.

Fuel Surcharge:- This rate is subject to fuel surcharge as described hereunder.

Rate R.P.2. - General Power Service.
(This rate is not available for service between 6 P.M. and 11 P.M.).

Rate:- Fixed charge: Rs. 2/-/2/- per month per B.H.P. connected or fraction thereof.

PLUS

Energy charge:- 2½ as. per unit for first 100 units consumed per month per B.H.P. connected or fraction thereof.

2 as. per unit for all additional energy consumed during the month.

Minimum Bill:- Payment of the fixed charge whether any energy has been consumed or not.

Fuel Surcharge:- This rate is subject to fuel surcharge as described hereunder

Rate R.C.2. - Cinemas (combined lighting and power service).

Rate:-

5 as. per unit for the first 1500 units consumed per month.

4 as. per unit for all additional energy consumed per month.

Minimum Bill:- Payment for a minimum consumption of 500 units per month.

Fuel Surcharge:- This rate is subject to fuel surcharge as described hereunder.

Fuel Adjustment:- If the average cost per ton of fuel oil having a calorific value of 19250 B.Th.U. delivered at the local generating station of the Grid Department for any month varies from the basic cost of Rs. 140/- per ton, the energy charge will be increased or decreased by 0.0075 anna per unit for each rupee (eight annas or more counting as one rupee for this purpose) by which the monthly average cost is above or below Rs. 140/- per ton respectively.

Fuel cost adjustment shall be based on average cost of fuel burnt during the calendar month next preceeding the period for which the bill is rendered.

In the event of fuel having a calorific value different from 19250 B.Th.U. being employed at the generating station, the above factor will be altered by multiplying by 19250 and dividing by the actual average net calorific value.

Meter Rent:-

Single phase meter:- 8 annas per month per meter.

Three phase meter:- Re. 1 per month per meter.

Delayed Payment charge:- A surcharge of one anna per each rupee of the total bill including meter rent (eight annas or more counting as one rupee for this purpose) will be made for all classes of service mentioned above, if payment is not made within 20 days of the date of billing.

Temporary Supply:- (For a period not exceeding 15 days)
Lighting, fans and small appliances:-

Rate:- 8 as. per unit for all units consumed.

Minimum Bill:- Rs. 5/- per day or Rs. 20/- for period of service whichever is lower.

Meter Rent:- Re. 1/- per meter for period of service.

Motive Power:-

Rate:-

Fixed charge: Rs. 2/12/- per month per BHP connected or fraction thereof.

PLMS

Energy charge: 2½ as. per unit for all energy consumed.

Minimum Bill:- Rs. 35/- for period of service.

Fuel Surcharge:- This rate is subject to fuel surcharge as described above.

Meter Rent:- Rs. 2/- per meter for period of service.

Electricity Duty:- Electricity duty will be collected in accordance with the provisions of the Bombay Finance Act, 1932, as amended to date. A hospital or dispensary not maintained for private gain is exempted from this tax. The following rates are at present in force:-

(a) Lighting and fans, when it is in excess of 12 units per month. ... ½ anna per unit.

(b) For Cinemas. ... ½ anna per unit.

(c) for other purposes. ... 1/8 anna per unit.

Miscellaneous charges:-

	Rs.
(a) Reconnections (Low tension service)	
At cut outs	3
At overhead mains.	5
At underground mains.	25
(b) Service Calls -	
For fuse replacement.	1
For attendance at functions.	5
(c) Meter Test.	
Single phase meter.	5
Poly phase meter.	10
Demand or special type	25

PSN/17.1.

27

No.Elg(D & S)II/356/1107
Electric Grid Offices,
Mercantile Bank Building, Fort,
Bombay 1: April, 1951.

27

To

The Secretary to Government,
Public Works Department,
BOMBAY.

Sub:- Revised Estimates for Electrification of
Guledgud & Kametgi in Bijapur Dist.

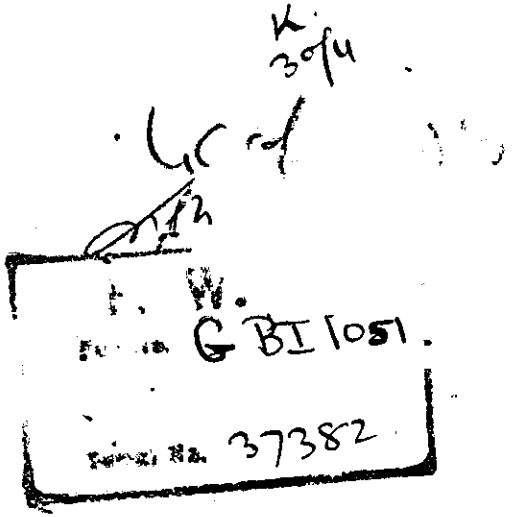
Ref:- This office letter No.Elg(D & S)II/1110 of 20-4-'51. pp 5-9

Please find enclosed in quadruplicate copies of rates and charges pp 23-35 which have been adopted for calculation of revenue and which are referred on the 10 year forecast sheet, Page 5 of the estimates forwarded to you p13 under above reference. p159

Executive Engineer(Diesel & Steam)II.

Enclosure:-
4 copies of Ratnagiri Electric Tariff rates.

BM/27.4.



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Letter.

No.Elg(D&S)II/356/12008
Electric Grid Offices,
Mercantile Bank Building, Fort,
Bombay 1: 8 May 1951.

To

The Secretary to Government,
Public Works Department,
Bombay.

Subject:- Electrification of Guledgud and Kamatgi in Bijapur District.

Reference:- This office letter No.Elg(D&S)II/356/12008 of 28.4.1951.

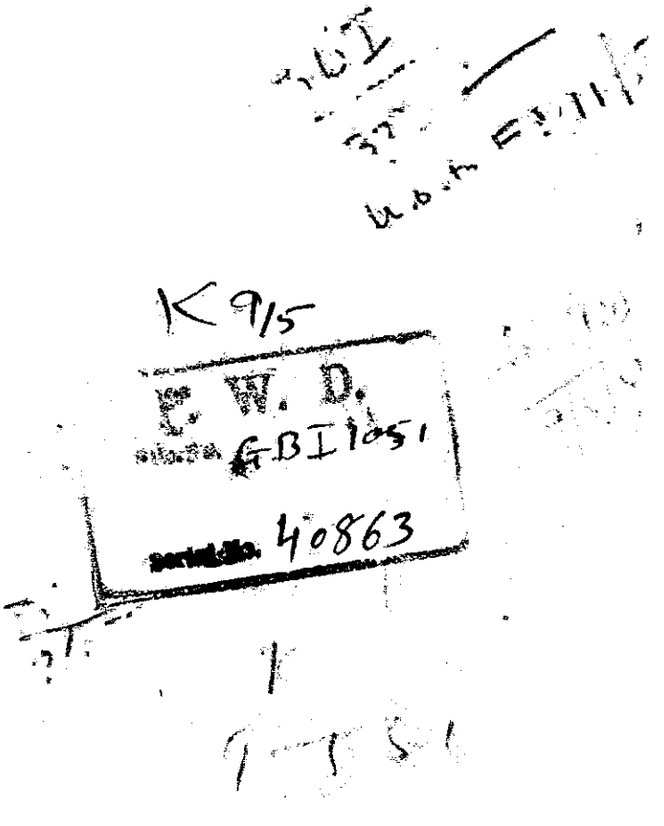
1 Please refer to my letter mentioned above wherein it was stated that the site for the Power House at Guledgud has been taken over and that tenders for the building work have been received.

2 Two tenders have been received for the same, the lower one from Messrs. L.R. Karaley & Sons amounting to Rs.79,659/-. In the revised estimates submitted to Government for revised administrative approval for the above scheme under this office letter No.Elg(D&S)II/11,110 of 20.4.1951, a provision of Rs.84,000/- has been made for the Power House Building and other civil works.

3 In order to avoid a further rise in building materials and labour costs, I request that Government be pleased to authorise me as soon as possible to place order on the above contractor to commence the building work for the above scheme in anticipation of revised administrative approval to the scheme.

T J [illegible]
8/5/51.
Chief Engineer.

MAK/8.5.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E. W. D.
GBI 1951
40863

Electrification of certain towns in Bijapur Dist.

Govt. of Bombay.
P. W. D.
Reso. No.GBI 1051
B.C.-(Bombay No.1),
12th June 1951.

G.R No.8993/36, of the 21-1-1948.
Letter No.Elg.(D & S)II/11110, dated the 20-4-51, from the C.E., Bombay Electric Grid, as under:-

(Enter)*

* pp.15-19 to be printed as an accompt.to the Reso.

RESOLUTION.- The plan and the revised estimate amounting to Rs.9,42,305 for the electrification of Guledgud and Kamatgi in the Bijapur Dist. ~~(at an estimated cost of Rs.9,42,305)~~ are approved administratively.

2. Expenditure on the scheme during the current year should not exceed the sanctioned grant of Rs.3,10,000 under the head "81-A Capital Outlay on

Electricity ...

Electricity Schemes - Post War Reconstn. & Development Programme", ~~without prior checking~~ by you.
6/6/51

By order of the G. of B.,

Dy.Secy.to Govt.

To

The F.D.
The ~~R.G.D.~~ Development Deptt.
The R.D.
The L.S.G.& P.H.D.
The Collr.of Bijapur.
The C.E., Bombay Electric Grid. (with plans and estimate
The S.E., S.C.
The Elecl.Engr.to Govt.
The Ex.Engr., Southern Electrical Division.
~~The Electrical Inspector, Bombay State.~~
The A.G., Bombay (~~three~~: ~~the P.W.~~.)

y consult me

GJP.
6/6/51

Electrification of certain towns in Bijapur District.

Government of Bombay.
Public Works Department.
Resolution No.GBI 1051.
Bombay Castle (Bombay No.1),
12th June 1951.-

Government Resolution No.8993/36, dated the 21st January 1948.

Letter No.Elg.(D.& S.)II/11110, dated the 20th April 1951, from the Chief Engineer, Bombay Electric Grid, as under:-

"I forward herewith in quadruplicate detailed estimates for revised administrative approval by the Government for the electrification of Guledgud and Kamatgi Towns in Bijapur District. ∠ with a note*

In Government Resolution No.8993/36 of 21st January 1948, Government gave administrative approval to the electrification of these towns at the following costs:-

	Guledgud Rs.	Kamatgi Rs.
Sub-estimate I:- Power Plant etc.	2,38,400	84,820-
" II:- Transmission and Distribution Lines.	45,862	88,766
" III:- Transformers, Switchgear etc.	77,038	26,414
	3,61,300	2,00,000

Joint Total : Rs.5,61,300/-

Whereas originally separate estimates were submitted for Guledgud and ~~Ka~~ Kamatgi, the estimate now submitted is for the electrification of both towns because the works pertain to one Scheme with only power house at Guledgud. Sub-estimate IV for Testing Apparatus has also now been included.

Under their letters Nos.8993/36-El(I) of 31st October 1949 and 8993/36-El(I) of 9th June 1950, Government were pleased to sanction the expenditure of Rs.3,24,772/- for power plant at Guledgud. Adding 5% for contingencies and 8% for other charges which have been adopted in the nursery schemes hitherto, the amount works out to Rs.3,68,292/-.

Under their letter No.8993/36-El(I) of 19th June 1950, Government was pleased to sanction the placing of orders for transmission and distribution line materials estimated at Rs.4,20,635/- which includes the contingencies and other charges mentioned in the previous paragraph.

The above two interim sanctions being only for materials of long delivery, the matter of the remaining items like Power House Building, land etc. were not dealt with previously.

As Government are aware, cost of building material and labour have also risen steeply. The administratively approved sanction dated 21st January 1948 allowed for Rs.63,050 for these items which have now to be revised to Rs.93,000. A new item of

Testing ....

*Printed as an accompaniment.

Testing Instruments has to be included for Rs.9,072/-, as the same was overlooked in the original proposal of 13th October 1947.

Since submitting the first revised estimates for Transmission and Distribution line materials under this office letter No.Elg.356/6530 of 12th April 1950, the price of copper, steel and rubber have shot up. The price for copper wire has been estimated 20% higher than the last year's rate contract rate for the same in the absence of a new rate contract and in view of the shortage of raw materials. For similar reasons, the rate for V.I.R. Cables has been estimated 33% higher than last year's rate contract rate.

A comparative statement of the cost of this scheme under each sub-estimate administratively approved by the Government and as now worked out is enclosed vide statement I.

The increase in interest and depreciation charges on account of higher capital cost and larger operation and maintenance charge due to:-

(a) the price of fuel oil being about Rs.250/- per ton at site against Rs.165/- per ton assumed previously in the administratively approved estimates,

and

(b) the increased charges on establishment due to increased cost of labour,

necessitate a revision; also of the Revenue Forecast on basis of which the scheme was administratively approved.

The tariff rates assumed for calculating revenue are therefore taken as those which have been sanctioned by the Government for Ratnagiri District and which are in force from 1st March 1951.

The Revenue Forecast for the first ten years worked out on the above basis is shown in statement II. It will be seen that the scheme is just self supporting in the 10th year of operation at the new tariff as the original proposal was at the old tariff.

Since both the capital cost and revenue forecast of the scheme have materially changed, revised administrative approval to the scheme is necessary, which may kindly be accorded. It is necessary to mention that in view of the frequent fluctuations in the present market conditions, the rates assumed in the estimates for materials yet to be ordered are only those as are now known and therefore to be treated as approximate".

RESOLUTION. - The plan and the revised estimate amounting to Rs.9,42,305 for the electrification of Guledgud and Kamatgi in the Bijapur District are approved administratively.

2. Expenditure on the scheme during the current year should not exceed the sanctioned grant of Rs.3,10,000 for it under the head "81-A Capital Outlay on Electricity

Schemes ....

Schemes - Post War Reconstruction and Development Programme".

By order of the Governor of Bombay,

(K.V. Joglekar)
Deputy Secretary to Government.

To

The Finance Department.
The ~~Reconstruction~~ Development Department.
The Revenue Department.
The Local Self Government and Public Health Department.
The Collector of Bijapur.
The Chief Engineer, Bombay Electric Grid (with plans and estimate).
The Superintending Engineer, Southern Circle,
The Electrical Engineer to Government.
The Executive Engineer, Southern Electrical Division.
The Accountant General, Bombay.

Orders issued after consultation with Department.
Notes remain with this Department and can be seen when required.

No. of 1951.

Copy forwarded for information and guidance to

Accompaniment to Government Resolution, Public Works Department, No.GBI 1051, dated the 12th June 1951.

Proposed Diesel Nursery Scheme for the Towns of Guledgud and Kamatgi in Bijapur District.

1) Features of Town:-

Guledgud:- Guledgud is situated in Badami Taluka. The nearest Railway Station is Guledgud Road, 7 miles off Guledgud. There is an all weather road connecting Guledgud and Guledgud Road. The total area covered by the town of Guledgud is 0.35 square miles.

Kamatgi:- Kamatgi is situated in Hungund Taluka. The nearest Railway Station is Bagalkot, 15 miles off Kamatgi. There is a Public Works Department road connecting Kamatgi and Bagalkot. The total area covered by the town is about 0.2 ~~xxxxx~~ square miles.

2) Population:-

Guledgud:- The population of Guledgud was 18,307 in 1941.

Kamatgi:- The population of Kamatgi was 6,995 in 1941.

3) Scope of Electrical Development:-

As a part of the first stage of electrical development under the post war reconstruction schemes in the State, Government have approved the electrification of these two towns. This proposal provides for the installation of a power station at Guledgud with the necessary equipment for generating electricity at 400/440 volts, 50 cycles A.C. and stepping up this voltage to 11 kV., transmission to the transformer substations at 11 kV. and distribution for domestic, industrial and street lighting purposes in the important parts of the towns at 400/230 volts.

Details ....

Details of the Scheme are as under:

(a) Power House:- The land necessary for the building of the power station and laying out the necessary auxiliaries and the machinery to be installed inside the building will be as shown in Drawing No.DS.II/195 enclosed.

(b) Generation:- In the initial stage, one diesel engine alternator of 200 kW. and two of 100 kW. each will be installed with the necessary auxiliaries. With the growth of load it is proposed to instal an additional set when necessary later. Though the cost of this extension is not provided in this estimate, the design of the power station building has been made so as to accommodate the fourth set.

(c) Outdoor step up sub-station:- The voltage is stepped up to 11000 volts by the installation of two numbers of 150 kVA transformers. 420/11000 volts in the power house compound.

(d) Transmission:- From the step up substation in the power house, one 11 kV. feeder is taken along the main road to feed transformer substations in the load centres at Guledgud and Kamatgi. The feeder will be run on rail poles, 60/50 lbs. section. The conductors will be of 6 S.W.G. copper

(e) Distribution:- The pole mounted outdoor transformer substations will be one of 75 kVA. at Kamatgi and 2 of 50 kVA. at Guledgud. From each of these substations a three phase 4 wire distribution will be taken over the important streets of the town to feed industrial and domestic consumers. The distribution lines will be taken wherever possible on the same poles carrying 11 kV. and singly along routes where no H.T. line is taken. Copper conductors of different sizes suitable for giving proper voltage regulation on the different feeders will be used. A separat phase wire from the power house and each substation is provided for street light conductors, the operation of which will be controlled at the power house and sub-stations. Guarding between H.T. and L.T. lines and L.T. lines and the ground is to be provided.

(f) Service connections:- On a moderate estimate it is anticipated that 754 domestic consumers, 32 industrial loads and 255 street lights will be connected up during the first five years of operation. This includes the cost to the Government on such connections.

(g) Testing Apparatus:- The estimate includes the provisic of necessary workshop and other tools for the power station and transmission and distribution lines and also the important instruments required for the operation and maintenance of the installations.

VSD
12/6/51
15

ISSUED

Letter.

No.Elg.D.&S.II/356/2432-
Electric Grid Offices,
Mercantile Bank Bldg.,Fort,
Bombay 1: 13 October 1950.

To

The Secretary to Government,
Public Works Department,
Bombay.

Subject:- Electrification of -
(1) Guledgud & Kamatgi,
(2) Ilkal, Hungund, Sulebhavi,
Aningad & Gudur in Bijapur

Re:- P.W.D.No.8993/36-El(1) of 3-10-1
this office No.Elg.D.&S.II/356/
of 3-6-1950.

The estimates for sanction in connection with electrification of the above towns will be submitted soon as the following items are finalised:-

(1) Indents have been placed on the Director Gener of Industries & ~~Stores~~ Supplies for the Transmission & Distr tion Line materials and are in the enquiry stage w him. Hence, the final prices which are to be incor in the estimates are not yet available.

(2) The Central Electricity Commission has forward our indents for rails to the Controller of Steel, Calcutta. The Commission, however, now informs us th the supply of rails will be slow and that alternative arrangements for urgent requirement of poles should b made. This is beirg done and the cost of the same for incorporating in the estimates will be known after enquiries are completed.

(3) The Power House site at Ilkal has been decided o Negotiations for its procurement are in progress. Whe this is completed, the cost of the site and the build will be arrived at.

P B Advani

Electrical Commissioner
With the Government of Bombay.

HBK/11.X.50.

3

No. Elg (D & S)II/356/ 4618
Electric Grid Offices,
Mercantile Bank Building, Fort
Bombay 1: 14 February, 1951

To

The Secretary to the Government,
Public Works Department,
B O M B A Y.

Sub:- Electrification of:-
1. Guledgud & Kamatgi.
2. Ilkal, Hungund, Sulebhavi, Amingad & Gudur in Bijapur District.

Ref:- P.W.D.No.8993/36-El(I) of 8-2-'51.

The revised estimates for sanction in connection with the electrification of the above towns are being prepared and will be submitted shortly.

P Nadkarni
Electrical Commissioner
with the Government of Bombay.

BM/13.2.

No.C.2/43
Electric Grid Org...
...ric Mills Bank Bldgs,
Bombay 1: January 1951.

To,

The Collector,
Bijapur District, Bijapur.

Subject:- Acquisition of land for the proposed Power House at Ilkal in Bijapur District.

I have to invite your attention to Government Resolution, Public Works Department No.8823/38 of 21st January 1948, whereby Government have been pleased to approve the scheme of electrification of Ilkal, Hungund, Jamkhandi and Gulabhavi in Bijapur District. The particulars of land selected for the Power House and proposed to be acquired are as under :-

Name of Taluka.	Name of Village.	Survey No.	Area to be Acquired. A.G.Gun.Ar.	Remarks.
Hungund.	Ilkal.	65	2- 4- 8	Duly prints in quadruplicate showing the land to be acquired are enclosed herewith.

2. In view of the fact that the Construction work of Power House is to be taken up immediately. I request that the above land may please be notified in the Government of Bombay Gazette for acquisition under Clause 17 (Urgency Clause) of land acquisition act to enable me to take possession of the land as early as possible and proceed with the Construction work.

3. It is found from the extract of record of rights that the land is privately owned and is agricultural. Copy of the extract of record of rights is also enclosed herewith.

4. The approximate amount of compensation to be paid including L.A. solatium to be paid to the party concerned together with the establishment charges that may be incurred by you, if payable by this department, may please be intimated as early as possible.

5. In view of the urgency of the matter copies of this letter together with the blue prints have been forwarded to the Secretary to Government, Revenue Department for information and necessary action.

Encls-1) B.P.Sketch No.110 in quadruplicate
2) Copy of the letter in quadruplicate.
3) Copy of Record-of-Rights in quadruplicate.
4) B.P.Sketch No.14 showing Taluka and Municipal limits and proposed Ratai... in quadruplicate

P B Advani
for Electrical Commissioner,
with the Government of Bombay.

Copy with a blue print for information with compliments to:-
1. The Secretary to Government, Revenue Department,.
2. The Secretary to Government, Public Works Department, Bom...
3. Copy for information to A.E.(Civil) Ratnagiri.
4. Copy for information to J.E.(Civil) Godoli, Wada. Kodoli
Thalakwadi, Belgaum.
5. Copy for information to E.E.(D.&.S)II, Bombay.

mj/-
31.1.51.

5

Letter.

No.Elg.(D.&S.)II/ 1111 0
Electric Grid Offices,
Mercantile Bank Bldg.,Fort,
Bombay 1: 2nd April 1951.

To

The Secretary to Government,
Public Works Department,
Bombay.

Subject:- Detailed estimates for the electrification of Guledgud & Kamatgi Tow-s in Bijapur District.

I forward herewith in quadruplicate detailed estimates with a note for revised administrative approval by the Government for the electrification of Guledgud & Kamatgi Towns in Bijapur District.

In Government Resolution No.8993/36 of 21-1-48, Government gave administrative approval to the electrification of these towns at the following costs:-

		Guledgud	Kamatgi.
Sub-estimate I:-	Power Plant etc.	Rs.2,38,400	Rs. 84,820.
II:-	Transmission & Distribution Lines.	Rs. 45,862	Rs. 88,766.
III:-	Transformers, Switchgear etc.	Rs. 77,038	Rs. 26,414
		Rs.3,61,300	Rs.2,00,000

Joint Total:Rs.5,61,300/-

Whereas originally separate estimates were submitted for Guledgud & Kamatgi, the estimate now submitted is for the electrification of both towns because the works pertain to one Scheme with only Power house at Guledgud. Sub-estimate IV for Testing Apparatus has also now been included.

Under their letters Nos.8993/36-El(1) of 31-10-49 & 8993/36-El(1) of 19-6-50, Government were pleased to sanction the expenditure of Rs.324,772/- for power plant at Guledgud. Adding 5% for contingencies and 6% for other charges which have been adopted in the nursery schemes hitherto, the amount works out to Rs.368,292/-.

Under their letter No.8993/36-El(1) of 19-6-50, Government was pleased to sanction the placing of orders for transmission & distribution line materials estimated a

DETAILED ESTIMATES

for

REVISED ADMINISTRATIVE APPROVAL.

GULEDGUD & KAMATGI.

BIJAPUR-DISTRICT.

APRIL 1951.

A (E) 1951

(9)

G. R. No. A—2646, dated 15-12-10.] P. W. D. 229 a.

Main Estimate No. I of 1951
Electric Grid Department
Diesel Nursery Schemes.

DIVISION.

PUBLIC WORKS DEPARTMENT:

Dated 19.

FUND HEAD— Provincial

MAJOR HEAD— 61A- Capital Outlay on Electricity Schemes.

MINOR HEAD— D - Post War Reconstruction & Development Schemes.

SERVICE HEAD—

DEPARTMENTAL HEAD—

ESTIMATE framed ~~by~~ in the Office of the Chief Engineer, Electric ~~Executive Engineer~~ Grid Department, Government of Bombay, of probable expense that will be incurred in the electrification of Guledgud & Kamatgi Towns in Bijapur District.

Rupees Nine Lacs Forty-two Thousand, three Hundred and Five only.

Rs 9,42,305/-

(Call or Authority.)

G.R.No.6993/36 of 21-1-1948.

GENERAL DESCRIPTION

ABSTRACT

Quantity.	Items.	Rate. Rs.	a.	p	Per.	Amount. Rs.
1	Power Plant & Machinery etc.	As per sub-estimate I				524,905
2	Transmission & Distribution lines.	As per sub-estimate II				197,763
3	Transformers, switchgear etc.	As per sub-estimate III				210,565
4	Testing Apparatus.	As per sub-estimate IV				9,072
	Total Rs....					942,305/-

D.H. Mehendale 20-4-57

Executive Engineer (Diesel & Steam) II.

T.S. Mehendale 20-4-57

Dated 19 .

× Chief Executive Engineer.

G. R. No. A—2646, dated 15-12-10.]

P. W. D. 229 a.

Sub - Estimate No. I.
Electric Grid Department
Diesel Nursery Schemes.

of 19 51.

DIVISION

PUBLIC WORKS DEPARTMENT:

Dated 19.

FUND HEAD— Provincial

MAJOR HEAD— 61-A, Capital Outlay on Electricity Schemes.

MINOR HEAD— D-Post War Reconstruction & Development Schemes.

SERVICE HEAD— Programme - Electrification Schemes of concentrated Rural Areas.

DEPARTMENTAL HEAD—

ESTIMATE framed by ~~xx~~ in the office of the Chief Engineer, Electric Grid Department, Government of Bombay,
Executive Engineer, of the probable expense that will be incurred in the electrification of Guledgud & Kumatgi towns in Bijapur District on Part I - Power House Machinery etc.

Rs 7,44,300/-

(Call or Authority.)

G.R.No.6993/36 of 21-1-1948.

GENERAL DESCRIPTION

ABSTRACT

	Quantity.		Items.	Rate. Rs.	a.	p	Per.	Amount. Rs.
1.			Land-cost of land to be acquired for power station - ~~well~~	L.S.				9000
2.			Power station buildings, foundations for engines, fencing, preparation of ground, well, & pumping house.	84000				84000
3.	1	set	Cost of fuel oil storage tanks consisting of 2 Nos. of M.S. Tanks size 6'-6" dia. and 12 ft. long of ¼" thick M.S. plates complete with necessary fittings, inspecting platforms, ladders, 2 Nos. 1½" semi-rotary pumps and 50 ft. of 1½" metallic flexible hose, necessary pipes & valves for connection to service tanks inside the power house 1 set of spare valves, cocks & gauge glass.	9901			set	9901
4.	1	No.	Five-ton capacity single girder hand-operated travelling crane with hand chain and gearing for the travel of crane and pulley blocks complete with a set of gantry girders of double run of M.S. Js 10"x4½"x25 lbs. - 30 ft. long & flat bottomed rails 20 lbs/yd.	7680			No	7680
5.			Diesel generating sets complete in all respects and with accessories, interconnecting piping to is and spare parts (a) four stroke four cylinder engine complete with generator 400/440 V; 3 phase, 4 wire, 50 cycles per second:-					
	1	No	200 KW. set.	77870			No.	77870
	2	No.	100 KW. set.	49365			No.	98730
	1	set	spare parts.	8370				8370
	2	sets	Spare parts.					

Engineer.

Dated 19 .

Executive Engineer.

P. W. D. 231 e.
'Estimate Abstract

ABSTRACT

Quantity.	Items.	Rate. Rs.	a.	p	Per	Amount Rs	dec.
6.	Coolers & accessories with Circulating water Pump sets:-						
1 No	(a) Mank Cooler.	15050			No.	15050	
3 No	(b)Heat Exchangers.	2294			No.	6880	
2 No	(c)Circulating water pumps.	940	8	-	No.	1881	
	(d)Pipes, Valves, Fittings.	2150	-	-		2150	
1 No	(e)Well pump (with necessary piping and reservoir).	833			No.	833	
7. 1 set	(a) Single cylinder, 7 H.P. at R.T.P. 1000 R.P.M.petrol/paraffin engine driven compressor & emergency lighting set complete with accessories, interconnecting piping, tools, & spare parts.	9030	-	-	set	9030	
1 No	(b) Electrically driven compressor with necessary fittings.	2193			No	2193	
2 Nos	Transformers 420V/11000 volts, 3 phase 50 cycles, Δ/人 , for step up sub-station 150 kVA.	7,300			No.	14600	
1 No.	11 kV switchgear required for 11 kV outdoor switching station consisting of 2 triple pole air break switches, suitable for outdoor use of 200 amps nominal working current capacity with operating handles & lever and with six single pole fuse holders suitable for outdoor use complete with six fuse cartridges, necessary copper connections, necessary lightning arrestors, necessary insulator supports & necessary operating rods for x fuses.	5096			No.	5096	
1 set	Electrical spare parts	765			set	765	
	Erection charges for H.T.Switchgear	1177				1177	
1. 1 No.	Streamline filter for lubricating oil capacity 10½ gallons per week.	1177			No.	361	
10. 2 Nos	Fire extinguishers 2 gallons capacity complete with initial charge and necessary fittings.	80					

G. P. Z. P. Poona, 1943

ABSTRACT

	Quantity.	Items.	Rate. Rs.	a.	p.	Per	Amount Rs.
11.	1 No.	Heavy duty truck for Bijapur Division	16000			No.	16000
12.		3x400/230V switch board complete with steel structure & instruments, circuit breakers, switches, synchronising equipments:-					
	1 No.	(a) of 8 panels.	45327			No.	45327
	1 No.	(b) quick acting voltage regulator for 3x400/230 V system complete with accessories.	4790			No.	4790
		(c) Spare parts.					2005
		(d) Erection charges for L.T. switch-board.					900
13.	1 set	Chequer plating.	1290			set	1290
14.	1 set	Interconnecting cables.					7500
15.		Lighting of power station & yard.					2500
16.		Workshop equipment.					12500
17.		Earthing.					21500
		Transport					1400
		Erection of Engines					10000
8.		Jointer's Tools.					500
							462,879
		Contingencies 5%.					23,144/-
							486,023
		Works establishment, tools & plant, Supervision & general charges 8%.					38,882/-
							524,90[illegible]

HBK/17.IV.51

G. R. No. A—2646, dated 15-12-10.] P. W. D. 229 a.

Sub - Estimate No. I of 1948.

Electric Grid Department
Diesel Nursery Schemes. DIVISION

PUBLIC WORKS DEPARTMENT:

Dated 193 .

FUND HEAD-Provincial.

MAJOR HEAD-31-A-Capital Outlay on Electricity Schemes.

MINOR HEAD-E-Post war Reconstruction & Development Schemes.

SERVICE HEAD-Programme - Electrification Schemes of Concentrated Rural Areas.

DEPARTMENTAL HEAD—

ESTIMATE framed in the office of the Chief Engineer, Electric of Bombay,
xxxExecutive Engineer and Department, Government/ of the probable expense
that will be incurred the electrification of Guledgud & Kamatgi Towns in Bijapur District on Part II - Transmission & Distribution Lines.

Rs. 97,763/-.

(Call or Authority.)

G.R.No.8993/36 of 21-1-1948.

GENERAL DESCRIPTION

ABSTRACT-

	Quantity.		Items.	Rate. Rs.	a.	p	Per.	Amount. Rs.	dec.
1.	7.12	m	11 kV line with 30 ft. 50/60 lb. rails for tangent locations and 30 ft. 60 lbs. rails for angles and dead ends, 300 ft. span with 3 Nos. of 8 S.W.G. copper conductor & earthing bracket.	10200			Mile	72624	
2.	0.407	m	11 kV line on 33 ft. 50/60 lb. rails for tangent locations and 33 ft. 60 lb. rails for angles and dead ends, 150 ft. span, with 3 Nos. of 6 S.W.G. copper conductors for H.T. lines and with L.T. lines on the same poles consisting of 3 Nos. of 2 S.W.G. copper and 1 No. of 4 S.W.G for 3 phase feeder, 1 No. of 8 S.W.G for street lighting & 1 No. of 8 S.W.G. G.I. Wire.	29100			Mile	11844	
3.	0.467	m	Same as item 2 above except that the L.T. feeder will be 3 Nos. of 4 S.W.G. copper & 1 No. of 6 S.W.G. copper for phases and neutral respectively.	26660			Mile	12983	
4.	0.165	m	Same as item 2 above except that the L.T. feeder will be 3 Nos. of 6 S.W.G. copper and 1 No. of 8 S.W.G. copper for phases & neutral respectively.	24850			Mile	4100	
5.	0.0176	M	Same as item 2 above except that there will be one additional L.T. feeder of 4 S.W.G. copper.	41510			Mile	731	
6.	0.44	m	L.T. line with 30 ft. 50/60 lb. rails for tangent locations and 30 ft. 60 lb. rails for angles and dead ends, 150 ft. span, with 3 Nos. of 2 S.W.G. & 1 No. of 4 S.W.G. copper for L.T. feeder, 1 No. of 8 S.W.G. copper for street lighting and 1 No. of 8 S.W.G. G.I. wire for earth.	19100			Mile	8405	
7.	1.397	m	Same as item 6 above except that the L.T. feeder is of 3 Nos. of 4 S.W.G. & 1 No. of 6 S.W.G. copper.	16655			Mile	23270	

Engineer:

Dated 19 .

Executive Engineer.

P.W.D. 23: 6
(Estimate Abstract)

ABSTRACT

	Quantity		Items	Rate Rs	a.	p	Per	Amount Rs	dec
8.	1.771	m	Same as item 6 above except that the L.T.feeder is of 3 Nos.of 6 SWG. & 1 No. of 8 SWG.copper.	14850			Mile	26300	
9.	0.652	m	Same as item 6 above except that the L.T.feeder is of 3 Nos. of 8 SWG.& 1 No. of 8 SWG.copper.	13861			Mile	9037	
	0.022	M	Same as item 6 above except that there will be three L.T.feeders of 4 SWG.copper.	38600			Mile	854	
11.	0.154	m	Same as item 6 above except that there will be two L.T.feeders of 4 SWG.copper.	25630			Mile	3947	
12.	1	set	Tools.	300			set.	300	
13x								174,395	
			Contingencies 5%.					8,719	
								183,114	
			Works establishment, Tools & Plant, Supervision & General Charges 8%.					14,649	
			Total...					197,763.	

HBK/17.IV.1951.

G. R. No. A—2646, dated 15-12-10.] P. W. D. 229 a.

Sub-Estimate No of 51

Electric Grid Department

Diesel Nursery Schemes.

DIVISION.

PUBLIC WORKS DEPARTMENT:

Dated 19

FUND HEAD Provincial

MAJOR HEAD 61-A-Capital Outlay on Electricity Schemes.

MINOR HEAD 2-Post War Reconstruction & Development Schemes.

SERVICE HEAD Programme - Electrification schemes of concentrated Rural Areas.

DEPARTMENTAL HEAD—

ESTIMATE framed by in the office of the Chief Engineer, Electric Grid Executive Engineer, Department, Government of Bombay, of the probable expense that will be incurred the electrification of Guledgud & Kamatgi Towns in Bijapur District on Part III - Transformers, L.T. switchgear, street lighting, service connections etc.

Rs 2,10,565/-

(Call or Authority.)

G.R.No.8993/36 of 21-1-1948.

GENERAL DESCRIPTION

ABSTRACT

Quantity.		Items.	Rate. Rs. a. p	Per.	Amount. Rs.
		Transformers:-			
1	No.	11 kV/400 volts three phase,50cycles 75 kVA outdoor transformer.	5030	No.	5030
2	Nos.	11 kV/400 volts three phase,50 " 50 kVA outdoor transformer.	4229	No.	8458
3	Nos	Erection of these transformers.	200	No.	600
		Structures:-			
1	Nos.	Step up structure near Power House	4220	No.	4220
2	Nos	Bifurcating structures near -do-	4220	No.	8440
3	Nos	Step down transformer structures.	2800	No.	6400
4	Nos	Telegraph crossing structures.	420	No.	1680
		Switchgear Erected:-			
	Nos	11 kV gang operated switches.	-	No.	-
5	Nos.	11 kV gang operated switch fuses.	1250	No.	6250
13 &	Nos.	11 kV lightning arresters.	116	No.	1508
13	set	L.T.lightning arresters.	40	set	520
3	Nos	L.T.switchgear.			7600
255	Nos	Street light fittings erected.	50	No.	12750
		Services:-			
754	No.	House services.	127	No.	95760
32	No.	Power Services.	380	No.	12160
63	No.	Bazar Services.	116	No.	7308
		Tools:-			
1	set	Standard lineman's tools in box.	5000	set	5000
					185684
		Contingencies 5%.			9284
					194,968
		Works establishment,tools & plant, Supervision & general charges &c.			15,597
					2,10,565/-

Engineer.

Chief Executive Engineer.

Dated

19

HEK/17.IV.51.

(49)

G. R. No. A—2646, dated 15-12-10.] P. W. D. 229 a.

Sub - Estimate No. IV of 51

Electric Grid Department
Diesel Nursery Schemes. DIVISION

PUBLIC WORKS DEPARTMENT:

Dated 10.

FUND HEAD—Provincial.

MAJOR HEAD—21-A-Capital Outlay on Electricity Schemes.

MINOR HEAD—B-Post-War Reconstruction & Development Schemes.

SERVICE HEAD—Programme - Electrification schemes of Concentrated Rural Areas.

DEPARTMENTAL HEAD-

ESTIMATE framed in the office of the Chief Engineer, Electric Grid Department, Government of Bombay/- of the probable expense that will be incurred in the electrification of Culad and Umatgi on part IV - Testing instruments.

Rs. 9,072/-

(Call or Authority.)

G.R.No.8993/36 of 21-1-1948.

GENERAL DESCRIPTION

ABSTRACT

- 2 -

Quantity.	Items.	Rate. Rs.	a.	p	Per.	Amount. Rs.
1) 1	set Testing Instruments.	8000			set	8000
						8000
	Contingencies 5%.					400
						8400
	Works establishment, tools & plant, Supervision & general charges 8%.					672
						9072

HEK/17.IV.51.

Engineer.

Dated 19

Executive Engineer.

Depreciation & Interest.

Guledgud & Kamatgi

Items.	Capital Rs.	Depreciation. Rs.
1. Power station building, well, fuel storage tanks, water cooling plant, crane. S.F.0.03722	120,271	4,476
2) Diesel generating sets, with accessories, emergency lighting set, water pumps, S.L. s.s. filter, truck & voltage Regulator. S.F.0.05377	219,384	11,796
3. Transformers, H.T.switchgear, fire extinguishers, cables, P.S.lighting workshop equipment, earthing. S.F.0.03722	89,834	3,343
4. Transmission & distribution lines, special structures. S.F.0.02743	197,135	5,408
5. Service Meters. S.F.0.05377	34,964	1,880
6. Outdoor transformers, switchgear, street lighting, service connections. S.F.0.03722	128,180	4,771
		31,674
Interest @ 3½% p.a. on Rs.942,305/-		32,981
	GRAND TOTAL.....	64,655

I = Rs. 524,905.
II = Rs. 197,763.
III = Rs. 210,565.
IV = Rs. 9,072
Rs. 942,305.

UBK/17.IV.51.

I.

GULEDMUD.

Cost of Operation & supervision including that of Transmission and distribution.

I - Power House & Office Staff.		Rs.
2 - Junior Engineers .	...	340
1 - Power House Foreman.	...	100
4 - Engine Drivers.	...	304
4 - Switch-board Operators.	...	256
1 - Fitter.	...	67
2 - Helpers to fitter.	...	70
4 - Power House Cleaners.	...	140
2 - Chowkidar Malis.	...	70
2 - Stores Laskar.	....	70
2 - Office Watchmen (Night)	...	70
1 - Clerk.	...	58
2 - Store Keepers.	...	152
2 - Bill Collectors.	...	116
2 - Inferior servants.	...	70
		1,863 p.m.
	or	22,596 p.a.

II - Transmission & Distribution.		
1 - Line Foreman.	...	100
3 - Linemen.	...	192
6 - Linemen Helpers.	...	210
2 - Wiremen.	...	128
2 - Meter Readers.	...	116
		746 p.m.
	or	8,952 p.a.

III - Sub-Divisional Office (Guledmud & Ilkal).		
1 - Assistant Engineer.	...	280
1 - Car cum lorry Driver.	...	76
1 - Cleaner.	...	35
1 - Draftsman.	...	116
1 - Senior Accounts Clerk.	...	132
2 - Clerk-Typists.	...	116
2 - Inferior servants.	...	70
1 - Clerk Typist.	...	124
		949 p.m.
	or 11,388 p.a. for both Guledmud & Ilkal Schemes. Take only Rs 5,694	

IV - Workshop staff (Guledgud & Ilkal)	Rs.
1 - Foreman.	... 70
2 - Fitters.	... 134
2 - Helpers.	... 70
1 - Turner.	... 67
1 - Blacksmith.	... 49
1 - Helper to Blacksmith.	... 35
	425 p.m.
or	5,100 p.a.

Rs.5100 for both Guledgud & Ilkal schemes.

∴ Take only. Rs.2,550.

Overhead Charges to meet the Expenses of:

Sub-divisional office.	...5,694 p.a.
Supervision of Bombay office.	... 500
Power House Staff.	..22,596
Transmission & Distribution.	...8,952
Workshop staff.	...2,550
	..40,292

Working Cost & Revenue.

1) Probable sale of Units - Non Industrial Load.	79,275 kWh.
2) Probable sale of Units - Industrial Load.	332,400 "
3) Units Generated for cooling water, motor pump sets.	13,140
	424,815
4) Loss due to Transmission & Distribution Lines 15%	63,723
Total units generated..	488,538

Cost of Fuel.

Fuel consumption per unit generated. 0.74 lb.

Total quantity required for generating = $\frac{488,538 \times 0.74}{2240}$ =161 Tons.

Cost of fuel in the 5th year at Rs.225/ton = 161x225 =Rs.36,225/-

Cost in annas per unit generated = $\frac{36,225 \times 16}{488,538}$ = 1.18 as.

Cost of Lubricating oil.

Consumption for 200 KW. set = 0.12 gallons/hour.

Quantity of oil per year = 0.12 x 24 x 365 = 1052 gallons.

Cost at Rs.4/8/- = 1052 x 4.5 = Rs.4734/-

Cost per unit generated = $\frac{4734 \times 16}{488,538}$ = 0.15 as.

Operation & Supervision:

Working cost = Rs.40,292/-

Cost/unit generated = $\frac{40,292 \times 16}{488,538}$ = 1.3 as.

Water & Stores:

Working Cost = Rs.2,500/- say.

Cost per unit generated = $\frac{2500 \times 16}{488,538}$ = 0.08 as.

Repairs & Maintenance:

Working cost = Rs.1800 say

Cost/unit generated = 0.05 as.

Incidentals & Insurance:

Working cost = Rs.1,527 say.

Cost / Unit generated = 0.05 as.

Running cost:	Working cost in Rs.	Cost/Unit in annas.
1) Fuel oil.	36,225	1.16
2) Lubricating oil.	4,734	0.15
3) Operation & Supervision.	40,292	1.30
4) Water & Stores.	2,500	0.08
5) Repairs & Maintenance.	1,800	0.05
6) Incidentals & Insurance.	1,527	0.05
	Rs.87,078	2.81 as.

Fixed charges.

Interest & Depreciation = Rs.64,655.

Fixed charges per unit = $\frac{64,655 \times 16}{488,538}$ = 2.11 as.

Total generating cost per unit = 2.81 + 2.11 = 4.92 as.

HBK/17.IV.51.

IV

Annual Revenue.

Quantity		Rate	Per	Amount Rs.
255 Nos.	Street lights (21,359 units)			12,700
46,820 units.	Domestic load including Govt: Buildings	-/8/	Unit.	23,410
190 Nos.	Bazar lights.	39	Each.	7,410
754	Meter Rentals single phase.	6	Each.	4,524
32	Meter Rentals three phase.	12	Each.	384
10,950	Cinema Units.	-/5/	Unit.	3,422
321,450	Industrial load.			71,728
				123,578

5th Year.

	Rs.
Total Revenue.	123,578.
Less working cost.	87,078
Balance....	36,500
Less Interest & Depreciation.	64,655
Net loss in 5th year.	Rs.28,155.

HBK/17.IV.51.

Data A 3 x 6 S.W.G. H.T.
Span 300 ft.

No.	Quantity	Items	Rate	Per	Amount. (Rs.)
1	15	Rails 30 ft. 50 lb	360	Ton	1,205
2	5	" " 60 lb	"	"	482
3	25	V Cross Arms	15	each	375
4	20	Top insulator fittings B, or B5	12	each	240
5	16	Guarding brackets	12	each	192
6	54	11 k.v. pin insulators.	16/8/-	each	891
7	30	11 Strain sets	28	each	840
8	12	Stay sets.	35	each	420
9	3.06	6 S.W.G. copper	1/12/-	lb	3,155
10		Sundries			368
11		Earthing			100
12	10	concreting	35	each	350
13		Erection			1,500
14	25	Cross Arm clamps included in item 3 above			
15	12	Stay clamps included in item 8 above			
					10,118

Say Rs. 10200/-

Data B

3x2 S.W.G. L.T.
1x4 " N
1x8 " S.W.
1x8 " G.I.
Span 150 feet

No.	Quantity	Items	Rate	Per	Amount. (Rs.)
1	38	Rails 30 ft. 50 lb.	360	Ton	3,054
2	7	" " 60 lb.	"	"	675
3	42	Top Insulator fittings B1/B5	12	each	504
4	84	L.T. Cross Arms A 5	14	"	1,176
5	130	Pin Insulators.	2/5/-	"	301
6	80	Shackle "	2/8/-	"	200
7	20	Stay Sets.	35	"	700
8	84	Cross arms clamps included in 4 & 5 above			
9	20	Stay clamps included in 8 above.			
10	40	Guarding (576' + 72 loop insulators).	4	"	160
11	3,06m	2 S.W.G. copper 691.8 lbs/1000yds	1/12/	lb.	6,521
12	1.02m	4 " " 488.8 " "	"	"	1,536
13	1.02m	8 " " 232.5 " "			730
14	1.02m	8 " G.I. 68 lb / 100 ft.	-/6/-	"	137
15		Sundaries.			800
		Earthing			70
17	10	Concreting	35	each	350
18		Erection			2,000
19	42	Earth wire clamps	3	each	126
					19,040

Say Rs. 19,100/-

Data B/1

Same as data B except that L.T. Will be 3 Nos. of 4 S.W.G. for phases & 1 No 6 S.W.G. for Neutral.

No.	Quantity:	Item	Rate	Per	Amount.
					Rs.
	Cost of 3.06 miles	4 S.W.G. hard copper			4.608
	" 1.02 "	6 "			1.052
					5,660 - B
	Cost of 3.06 miles	2 " "			6,521
	Cost of 1.02 miles	4 " "			1.536
					8.057 - A
	Difference in Cost (A-B)				2.397
		of sundries.			48
					2,445
	Cost/mile	= Rs. 19100-2445 =			Rs. 16,655

Data -B/2

Same as data B except that L.T. will be 3 Nos. of 6 S.L.C. copper for phases & 1 No 8 S.W.G. for neutral.

No.	Quantity	ITEMS	Rate	Per	Amount (Rs).
		Cost of 3.06 miles 6 S.W.G. copper			3,155
		Cost of 1.02 miles 8 S.W.G. copper			730
					3,885 - B
		Cost of No. 284 S.W.G. copper as in data B/1			8,057 - A
		Difference in cost of copper = A-B =			4,172
		Difference in cost of sundries.			82
					4,254

Cost per mile = Rs. 19100 - 4254 = Rs. 14,846

Say Rs. 14,850.

Data B/3

Same as data B except that the L.T. feeder will be all 6 S.W.G. copper.

No.	Quantity	Items	Rate	Per	Amount (Rs).
		Cost of 4.08 miles 6 S.W.G. copper			2,920 - B
		" " 3.06 " 2 "			6,521
		" " 1.02 " 4 "			1,536
					8.057 - A
		Difference in cost of copper = (A-B)			5,137
		" " " " Sundries			102
					5239

Therefore Cost per mile = Rs. 19100 - 5239 = Rs. 13,861/-

Data D/4

Same as data D/1 except on additional L.T.feeder of same size

No:	Quantity:	Items	Rate	Per	Amount Rs.
:	:	Cost of 3 phase 4 SWG.L.T: feedor from data D/1.	:	:	17,820
:84 Nos.		:L.T.Cross Arms.	: 14	: Each:	1,176
:3.06mile:		of 4 SWG.copper.	:1/12/-:	lb. :	4,608
:1.02 M.	:	" 6 SWG.copper.	:1/12/-:	lb. :	1,052
:130		:L.T.Pin Insulators.	:2/5/-	:each.:	301
: 80		:L.T.Shackle Insulators.	:2/8/-	:each.:	200
:		:Erection.	:	:	473
			Total cost Rs.		25,630

HBK/17.IV.51.

DATA B/5.

Same as data B/1 except two additional L.T.feeders of same size.

Quantity	Items.	Rate	Per	Amount Rs.
	Cost of 2 - three phase 4 SWG L.T.feeders from data B/4			25,630
84	L.T.Cross Arms.	16	Each.	1,344
3.06 mile	of 4 SWG. copper.	1/12/-	lb.	4,608
1.02 mile	of 6 SWG. copper.	1/12/-	lb.	1,052
130	L.T.Pin Insulators.	2/5/-	Each.	301
80	L.T.Shackle Insulators.	2/8/-	Each.	200
45.	Rails 36', 60 lbs.			5,208
	Extra for Erection.			457
			Total Cost.,Rs:	38,800/mile

HBK/17.IV.51.

DATA C 3 x 6 SWG. H.T.
3 x 2 SWG. L.T.
1 x 4 SWG. ~~SWG~~N.
1 x 8 SWG. SW.
1 x 8 SWG. G.I.
span 150 feet

No.	Quantity	Items.	Rate	Per	Amount.
1	38	Rails 33 ft., 60 lb.	360	Ton	4,030
2	12	Rails 36 ft., 75 lb.	360	Ton	1,736
3	45	V Cross arms for H.T.	15	Each	675
	38	Top Insulator fittings.	12	Each	456
5	76	L.T.Cross-Arms.	14	Each	1,064
6	120	11 K.V. Pin Insulators.	16/8/-	Each	1,980
7	165	L.T.Pin Insulators.	2/5/-	Each	382
8	48	11 K.V.Strain sets.	28	Each	1,344
9	120	L.T,Shackle Insulators.	2/8/-	Each	300
10	14	Stay sets.	35	Each	490
11	121	Cross Arm Clamps-included in 3&5above	-	-	-
12	14	Stay " " " "	-	-	-
13	40	Guarding.	4	Each	160
~~14~~	3.06 m	6 S.W.G.copper 334.8 lbs/1000 yds.	1/12/-	lb.	3,155
15	"	2 S.W.G.copper 691.8 lbs/1000 yds.	"	lb.	6,521
16	1.02 m	4 SWG. copper 408.8 -do-	"	lb.	1,536
17	1.02 m	8 -do- 232.5 -do-	"	lb.	730
18	1.02 m	8 -do- G.I. 68 lb/1000 ft.	-/6/-	lb.	137
19		Gundries including packing pieces 4%			1,200
20		Earthing.			80
21	20 Nos.	Concreting.	35	Each.	700
22		Erection.			2,400
23	38	Clips for earth wire.	-/8/-		19
					29,095

Say Rs.29,100.

HBK/16.IV.51.

DATA C/1

Same as data C except that L.T.will be 3 Nos. of 4 S.W.G. copper and one No. of 6 S.W.G.copper for phases & neutral respectively.

Quantity.	Items.	Rate	Per	Amount.
				Rs.
3.06 m.	4 S.W.G.copper.			4,608
1.02 m.	6 S.W.G.copper.			1,052
				5,660 B
3.06 m.	2 S.W.G. copper.			6,521
1.02 m.	4 S.W.G. copper.			1,536
	~~(A-B)~~			8,057 A
	Difference in cost of copper A-B:			Rs.2,397
	Difference in cost of sundries 2%:			48
				Rs.2,445

Cost per mile = 29,100 - 2,445 = Rs.26,655

Say Rs.26,660/-

****

DATA C/2

Same as data C except that the L.T feeder will be 3 Nos. f 6 S.W.G. Copper and 1 No. of 8 S.W.G. for phase and Neutral resptly.

No.	Qty.	Items.	Rate	Per.	Amount.
	3.06 M.	6 S.W.G. copper	--	--	3,155
	1.02 m.	8 S.W.G. copper	--	--	730
					3,885- B
	3.06 m	2 S.W.G. Copper.	--	--	6,521
	1.02 m	4 -do- -do-	--	--	1,536
					8,057 -A
		Difference in cost (A-B)			4,172
		sundries			83
					4,255

Therefore, cost per mile = Rs.29100-4255 = Rs.24,845

Say Rs.24,850

nmj/-

DATA C/4

Same as data ~~x~~ C except that there will be as additional L.T. feeder of 3 Nos.4 S.W.G. per phases and 1 No.6 S.W.G.for Neutral.

No.	Qty.	Items.	Rate.	Per.	Amount Rs.
		Cost as per data C	--	--	29,100
	45Nos.	Extra Rails 33 ft.60 lbs.	--	--	4,773
	3.06m	of 4 S.W.G.copper	--	--	4,608
	1.02m	of 6 -do-	---	--	1,052
	132	L.T.Pine Insulators.	2/5/-	each.	305
	96	-do-Shackle insulators.	2/8/-	each.	240
	45	Cross Arms.	14/-	each.	630
		Erection-Extra cost.			800
					41,508

Therefore cost per mile = Rs.41510/-

nmj/-

DATA-D- House Service Connection, Single phase, Insulated.

No.	Qty.	Items.	Rate.	Per.	Amount.
1.	100ft.	3/.036 V.I.R.S.C.cable.	28½	100yds.	9.5
2.	50ft.	8 S.W.G.G.I.bearer wire 68 lbs/1000ft.	-/6/-	lb.	1.3
3.	1	Outdoor rewireable fuse 15Amps.	3	each.	3.0
4.	1	Iron clamp,bolt &nut.	4	each.	4.0
5.	1	6" Eye bolt.	1	each.	1.0
6.	4	Reel Insulators.	8	gross	0.3
7.	24	Wooden separators.	-/ 8 /-	each.	12. 0
8.	6ft.	3/4" conduct pipe.	40	100ft	2.4
9.	2	" " bends.	8	doz.	1.3
10.	2	" " Couplings.	4	"	0.7
11.	25ft.	Casing and Capping 1¤"X¼"	20	100'	5.0
12.	1	Meter Board 12"X18"X1"	4	each.	4.0
13.	1	10Amps.I.C.cutout.	3	each.	3.0
14.	6prs.	2 way porcelain cleats.	5	gross.	0.5
15.	1	Single phase meter.	42	each.	42.0
		Sundries.			10.0
		Erection.			10.0
					110.0
		+15% transport.			16.5
					= 126.5.
				Say Rs.127	

nmj/-

DATA-4-Power Service Connection, three phase insulated.

No.	Qty.	Items.	Rate.	Per.	Amount.
1	200ft.	7/.064 V.I.R.S.C. Cable.	120	100yds.	80.0
2.	100ft.	2 bearer wires @ SWG.G.I. 68lbs/1000ft.	-/6/-	lb.	2.6
3-	2	Angle iron for cross arms with clamps.	4	each.	8.0
4.	2	6" eye bolts.	1	each.	2.0
5.	3	S.F.30Amps.rewireable fuse.	4	each.	12.0
6.	24	Wooden separators.	-/8/-	each.	12.0
7.	25ft.	1½" G.I.Pipe.	1-6-6	ft.	35.3
8.	3	" " Bends.	3	each.	9.0
9.	3	" " couplings.	1/4/-	each.	3.8
10.	1	Meter Board 2'X2'X1"	7	each.	7.0
11.	3	I.C.Kwmt cutout 30 Amps.	4	each.	12.0
12.	1	3 phase,3 wire meter.	103	each.	103.0
		Sundries.			20.0
		Erection.			20.0
					326.7
			Transport 16%		49.0
					375.7

say Rs.380/-

nmj/-

Data -7- Service to a group of 3 Bazar Lights.

Sp.	Qty.	Items.	Rate.	Per.	Amount.
1	300ft.	3/.036 V.I.R.cable.	28/-	100yds.	28.3
2.	50ft.	bearer wire 8 SWG.G.I.	-/6/-	lbs.	1.3
3.	1	Outdoor rewirable fuse 15 Amps.	3	each.	3.0
4.	1	Flat iron clamp.	3	each.	3.0
5.	16	Wooden separators.	-/8/-	each.	8.0
6.	1lbs.	No.22SWG.G.I.wire for binding.	-/7/-	lbs.	0.5
7.	60prs.	Porcelain cleats.	5	gross.	5.6
8.	10ft.	3/4" conduct pipe.	40	100ft.	4.0
9.	2	" " bends.	8	doz.	1.3
10.	2	" " couplings.	4	doz.	0.7
11.	10ft.	Wooden casing & capping.	20	100ft.	2.0
12.	1	15Amps.D.P.I.C.Switch.	8	each.	8.0
13.	4	Reel insulators.	8	gross.	0.3
14.	3	Wooden blocks round	-/8/-	each.	1.5
15.	1	" " 6" square.	2/8/-	each.	2.5
16.	3	Lamp Holders.	27	doz.	6.8
17.	3	40-60 watt bulbs.	16	doz.	4. 0
		Sundries.			10.0
		Erection.			10.0
					100.8
			15% transport.		15.0
					115.8
			Say Rs.116/-.		

nmj/-